

## Minutes

# Community Advisory Group meeting #5

Chair	Ian Gibson	Time	4pm-6pm
Minutes	Susan McMillan	Date	2021-05-24
Location	Toora Football Club – Jetty Rd Toora		

## Attendance

Members		Project team		Apologies	
Ian Gibson	Jenny Smith	Casper Frost Thorhauge		Jonathan Pintus	
Caleb Barlow	Wendy Farmer	Erin Coldham		Deb Lucas	
Tony Cantwell	Christine Legg	Sarah Altmann		Matt Langdon	
Cr Marcus McKenzie	Dane Heinrich	Susan McMillan		Darren McCubbin	
Jessica Young	Travis Dillow	Stella Bodman		Glenn Stagg	
Allan Rogers	Harry Mitchelson				
Mary-Lou Dixon	Peter Mooney				
Jack Winterbottom	Tony Wolfe				
Nicki Jennings	Allison Spence				

## Actions – previous

No.	Action	Owner	Due	Status	Update
1	Respond to questions taken on notice	Susan McMillan	30/04/2021	Complete	

## Key discussion points

Item	Discussion points
1	<p><b>Welcome and acknowledgement of country</b></p> <ul style="list-style-type: none"> <li>• Chairperson welcomed new members:               <ul style="list-style-type: none"> <li>○ Nicki Jennings – filling in for Julianne while she is taking leave due to illness.</li> <li>○ Christine Legg – filling in for Rick while he is on long service leave until August.</li> <li>○ Tony Cantwell – replacing Jane as Committee for Gippsland representative.</li> <li>○ Allison Spence – replacing Shannon as Latrobe City Council representative.</li> </ul> </li> </ul>
2	<p><b>Standing items and actions from previous meeting</b></p> <ul style="list-style-type: none"> <li>• Endorsement of minutes for CAG meeting #4.</li> <li>• SMS alerts to CAG members has been implemented and will continue to be used to highlight key updates or actions required.</li> <li>• Several questions raised at previous meeting and online have been responded to and are available to view on CAG member website.</li> </ul>
3	<p><b>What's happening on the project</b></p> <ul style="list-style-type: none"> <li>• Draft scopes for the project's Environmental Impact Statement (EIS) and Environment Effects Statement (EES) are expected to be released for public review and comment within the next month. Government will run a formal 15-day consultation period. Anyone interested in how the project's impacts will be assessed are encouraged to participate. Star of the South will communicate widely when the draft scopes are available.</li> <li>• Chairperson highlighted 15-day review and comment period will likely fall before the next CAG meeting and encouraged members to share information in the community, get involved and share any feedback they provided to government with the group online or in the next meeting.</li> <li>• Star of the South's EIS/EES Consultation Plan has been published on the project website and Department of Environment, Land, Water and Planning (DELWP) website. This sets out our commitments during preparation of the EIS/EES. This will be a live/evolving document, feedback is welcomed.</li> <li>• Engagement with landholders on the transmission route is ongoing, working on individual circumstances with each landholder.</li> <li>• Environmental studies are continuing onshore and offshore.</li> <li>• Star of the South made submission to Victorian Government's Renewable Energy Zone Development Plan Directions Paper. The submission has been shared on the CAG member page for people's interest.</li> <li>• Star of the South has welcomed two new team members based in the Yarram office.</li> <li>• Participation in many local and industry events:               <ul style="list-style-type: none"> <li>○ Erin spoke at the Clean Energy Council's Wind Industry Forum. It was the first-time offshore wind was on the agenda and exciting to be involved.</li> <li>○ Casper will be speaking at the Australian Energy Week at the Exhibition Centre.</li> </ul> </li> </ul>



Item	Discussion points
	<ul style="list-style-type: none"> <li>○ Erin presented to Wellington Shire Council, was a great opportunity to answer questions from local representatives.</li> <li>○ Susan and Stella attended Yarram Renewable Energy and Circular Economy Event. There were 12 stalls representing local energy ideas and projects. More than 90 people attended.</li> <li>● Erin encouraged members to identify community groups or events where people would like to hear from the project. We are happy to attend, present and answer questions.</li> </ul>
4	<p><b>What’s happening in the community</b></p> <ul style="list-style-type: none"> <li>● Nicki advised that Giffard/Darriman is within a proposed ‘Renewable Energy Zone’ and that many developers are approaching landholders, causing concerns in the community. Local feedback is that Star of The South is good to deal with and the negotiation process has been positive, with flexibility shown to accommodate landholder concerns and suggestions.</li> <li>● Wendy is hearing positive feedback in her community about the project.</li> <li>● Jack advised that Star of the South’s consultation is 10/10, compared to previous experience with the EES process for a local mining project.</li> <li>● Peter was involved in a briefing by Energy Australia about the retirement of Yallourn. He advised that there has been a lot of discussion about potential job prospects and whether Star of the South will be ready in time.</li> <li>● Erin responded that she has started a conversation with Energy Australia, Latrobe Valley Authority, and others. Star of the South released a statement about Energy Australia’s announcement. Skills in the energy sector are transferable and getting the workforce ready for offshore wind opportunities is a focus.</li> <li>● Ian requested that two CAG members nominate to provide updates on their communities for the next meeting: Jessica Young and Peter Mooney nominated.</li> </ul>
5	<p><b>Focus on turbines</b></p> <ul style="list-style-type: none"> <li>● Casper provided an overview of turbines, technology developments, construction, logistics, maintenance and decommissioning.</li> <li>● Refer to presentation supplied.</li> </ul>
6	<p><b>Questions and discussion</b></p> <ul style="list-style-type: none"> <li>● Question about turbine size for the project: does EIS/EES decide the size or if Star of the South chooses – Star of the South choose considering environmental, commercial and technical considerations.</li> <li>● Question about ports: how far along is the process for selecting a port, with Barry Beach port so close – Project is still assessing suitable ports for construction and operations phase. Barry Beach ports being considered for maintenance and operations activities appropriate for the size of the port. Depending on the turbine size selected, construction will need larger/deeper ports to accommodate the components and vessels.</li> <li>● Question about turbine construction; What is the height of the yellow part of the tower (transition piece) – It is around 25 metres, depending on overall turbine size.</li> </ul>

Item	Discussion points
	<p>It needs to clear waves and sea levels, to ensure safety of workers.</p> <ul style="list-style-type: none"> <li>• Question about weather conditions needed for installation, as local weather can be unpredictable – Relatively calm conditions are needed. Conditions in Bass Strait generally less rough than North Sea at its worst, but also fewer calm days. Conditions are closely monitored, and construction planning construction windows based on this. The big ack-up installation vessels are built to withstand rough weather.</li> <li>• Question on how long installation takes – This is dependent on many factors including turbine size, weather, seabed conditions. Generally, with ideal conditions, turbine installation takes 24 hours, cabling can take 15 hours per turbine. There are many variables to construction and operating, so timelines are difficult to predict.</li> <li>• Question about decommissioning and whether infrastructure can be re-used – To re-power a project (keep it operating beyond its design life of around 30 years), it would need re-assessment and approval by authorities. 80% of turbines currently recyclable with manufacturers targeting zero-waste turbines in the next 20 years.</li> <li>• Question about carbon emissions payback period for turbines – Question taken on notice and referred to Global Wind Energy Council report which has some data on this.</li> <li>• Question about airborne noise from piling to install foundations, would the sound carry to McLoughlins Beach – Question taken on notice.</li> <li>• Question relating to video: What size are the blades of turbine featured in the video – 164m diameter on the Vestas turbine shown.</li> <li>• Question about why three blades are used – Studies have been performed to determine the optimum design. Three blades found to be most efficient.</li> <li>• Question about blade construction and materials used – Blades are constructed from carbon fibre and fibreglass, a composite material made in a mould, usually in a half/half construction. As they need to last 30 years, the structure is extremely strong. The turbine moves quite slowly in the middle but the outer the edge of the blades moves at a speed of a formula one car, therefore needing highly engineered structure and strength to withstand the pressure.</li> <li>• Question regarding the turbine, what size will be used on SOTS project – This is being investigated and will not be selected for some time. The current/future range is between 5.6MW – 18MW. There are many factors considered including wind profile, seabed conditions, ports and supply chain for making the turbine.</li> <li>• Question about whether blades can ‘feather’ in response to wind speed and what speed they get shut off – Yes, blades are continually adjusted to maximise energy production. Turbines can be placed in ‘safe mode’ to protect them from damage in extreme weather. Turbines are being built for Japan and Taiwan where they need to withstand typhoon conditions.</li> <li>• Question about manufacture of turbines, whether they are constructed onshore and transported by road – It depends on the place of manufacturer and transportation required – i.e. ports available for the size of the vessels carrying the turbines. The supply chains look at all factors and logistics. Only a handful of manufactures in the</li> </ul>

Item	Discussion points
	<p>world however more starting to supply offshore turbines.</p> <ul style="list-style-type: none"> <li>• Question about whether manufacturing offshore and onshore turbines is similar - Companies like Vestas, GE and Siemens all make onshore and offshore turbines but the technology is very different. For example, for offshore, salt water is an issue, so the structure needs to be built in a different way to suit the conditions. Foundations are different. Control units and gear box elements are similar parts.</li> <li>• Question about whether turbines could be made in the Latrobe Valley as they have been built there before - We are looking to use local suppliers wherever possible, however there are currently no offshore wind turbine manufacturers in Australia. We need to see if these manufactures are keen to set up in Australia or if existing Australian manufactures would set themselves up to produce offshore turbine components. We're working to understand what's possible, by talking with the supply chain including local industry.</li> </ul>
7	<p><b>Other items</b></p> <ul style="list-style-type: none"> <li>• Suggestions for future agenda items – turbines, economic benefits, jobs/investment, road infrastructure and traffic, onshore ecology along transmission route.</li> <li>• Chairperson noted that the Australian Energy Infrastructure Commissioner expressed an interest in attending a meeting.</li> <li>• Next meeting to be held in July, date and venue to be confirmed.</li> </ul>

## Actions – new

No.	Action	Owner	Due
1	Confirm day, time, and location for next meeting	Susan McMillan	9/06/2021
2	Remind Jessica and Peter about their community updates for the next meeting	Susan McMillan	5/7/2021
3	Respond to questions taken on notice: <ul style="list-style-type: none"> <li>• Question regarding carbon footprint of turbine parts construction and installation of complete windfarm.</li> <li>• Question on notice – sound from offshore piling - can it be heard on shore</li> </ul>	Susan McMillan	29/06/2021

## Next meeting

Date	Time	Place
15 July 2021	4:00pm–6:00pm	Morwell Innovation Centre

## Addendum: Questions taken on notice

### **Q. How long is the carbon emissions payback period for a 13MW tower?**

A. We're still looking into this one and will come back with a response when we have it.

In the meantime, here's some information on smaller turbines:

"Lifecycle analysis shows that the carbon emissions payback period for wind is...about 5.4 months for a 2 MW onshore turbine and 7.8 months for a 6 MW offshore turbine, as of 2016. The manufacturing and installation stages account for over 90% of the total carbon emissions of an onshore wind farm and 70% of carbon emissions for an offshore wind farm (where shipping transport takes up a larger share)."

Source: GWEC Wind Industry Report 2021

### **Q. Will piling noise from turbine foundation construction be audible at Mcloughlins Beach?**

A. We are just kicking off our noise impact assessments for the EIS/EES, so it's too early to know what the predicted sound levels may be. It'll depend on many things, including the size and layout of the project and construction methods and timing. Looking at projects overseas, piling noise is sometimes heard on shore depending on distance, weather conditions and wind direction. We'll keep you posted as our noise study progresses.